

In the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An isolated polypeptide comprising an RNase P consensus sequence, wherein said RNase P consensus sequence comprises at least nine of the following twenty amino acids: R11, L12, F18, R46, G48, V51, K53, K54, A59, V60, R62, N63, K66, R67, R70, L80, D84, V86, L101, and L105, and wherein said polypeptide has RNase P protein activity, wherein said polypeptide is a bacterial polypeptide, and wherein said polypeptide is not a polypeptide from one of the following organisms: *Coxiella burnetii* (None Mile) U10529, *Rickettsia prowazekii* (Madrid E) AJ235272, *Neisseria meningitidis* (Z2491) AL162753, *Neisseria meningitidis* (MC58) AE002540, *Buchnera aphidocola* M80817, *Buchnera aphidocola* (SGS) AF008210, *Buchnera* sp. (APS) AP000398, *Haemophilus influenza* (RD KW20) U32848, *Escherichia coli* M11056, *Escherichia coli* (K-12) AE000394, *Proteus mirabilis* M58352, *Pseudomonas aeruginosa* (PAO1) AE004968, *Pseudomonas putida* P25752, *Salmonella typhi* (CT18), *Yersinia pestis* (Orientalis), *Xylella fastidiosa* AE004083, *Campylobacter jejuni* (NCTC 11168) AL139076, *Helicobacter pylori* (26695) AE000645, *Helicobacter pylori* (J99) AE001557, *Micrococcus luteus* (S66) U64884, *Mycobacterium avium* (104) AF222789, *Mycobacterium bovis* (AF2122/97), *Mycobacterium leprae* (Lortist 6) L39923, *Mycobacterium tuberculosis* (H37Rv) AL021426 X92504, *Streptomyces bikiniensis* (Zorbonenis) M83112, *Streptomyces coelicolor* (A3(2)) M82836 AL049826 AF031590, *Bacillus halodurans* (C-125) AB013492, *Bacillus subtilis* (168) X62539 AL009126, *Mycoplasma capricolum*

(mcs5) P14982, *Mycoplasma genitalium* (G-37) U39713, *Mycoplasma pneumoniae* (M-129) U00089, *Staphylococcus aureus* (ISP3) AF135268, *Ureaplasma urealyticum* (3/1) AE002158, *Pseudanabaena* sp. (PCC6903) AJ000513, *Synechocystis* sp. (PCC6803) X81989, *Borrelia burgdorferi* (212) Z12166, *Borrelia burgdorferi* (B31) AE000783, *Treponema pallidum* (Nichols) P50069, *Chlamydia trachomatis* (serovar D) AE001351, *Chlamydia muridarum* (trachomatis MoPn) AE002160, *Chlamydophila pneumoniae* (CWL 029) AE001673, *Chlamydophila pneumoniae* (AR39) AE002251, *Deinococcus radiodurans* (R1) AE002049, *Thermotoga maritima* (MSB8) AAD36531, *B. burgdorferi*, *C. burnetii*, *C. pneumoniae*-2, *C. trachomatis*, *H. influenza*, *H. pylori*-48, *M. leprae*, *M. luteus*, *M. tuberculosis*-2, *M. bovis*, *Pseudanabaena*-6903, *R. prowazekii*, *S. bikiniensis*, *Synechocystis* 6803, *Staphylococcus aureus*, and *S. pneumoniae*.

2. (Original) The polypeptide of claim 1, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NOS: 20-38.

3-7. (Canceled)

8. (Currently amended) A method of identifying an antibiotic agent, which may be useful as an antibacterial agent, said method comprising:

- i) obtaining an RNase P holoenzyme comprising the polypeptide of claim 1;
- ii) contacting said holoenzyme with an RNase P substrate in the presence and in the absence of a compound; and
- iii) measuring the enzymatic activity of said holoenzyme; wherein a compound is identified as an antibiotic agent which may be useful as an

antibacterial agent if said compound produces a detectable decrease in said RNase P enzymatic activity as compared to activity in the absence of said compound.

9. (Previously presented) The method of claim 8, wherein said polypeptide has at least 95% identity to the corresponding twenty amino acids: R11, L12, F18, R46, G48, V51, K53, K54, A59, V60, R62, N63, K66, R67, R70, L80, D84, V86, L101, and L105 of *E. coli* RNase P.

10. (Original) The method of claim 8, wherein said activity is measured by fluorescence spectroscopy.

11. (Previously presented) The method of claim 8, wherein said RNase P substrate is fluorescently tagged ptRNA<sup>Gln</sup>.

12. (Canceled)

13. (Previously presented) The method of claim 11, wherein said contacting is carried out in a buffer comprising 10-40 µg/ml carbonic anhydrase and 10-100 µg/ml polyC.

14. (Original) The method of claim 13, wherein said buffer further comprises at least one of the following:

0.5-5% glycerol;

10-100 µg/ml hen egg lysozyme;

10-50 µg/ml tRNA; or

1-10 mM DTT.

15. (Original) The polypeptide of claim 1, having 100% identity to the corresponding twenty amino acids: R11, L12, F18, R46, G48, V51, K53, K54, A59, V60, R62, N63, K66, R67, R70, L80, D84, V86, L101, and L105 of *E. coli* RNase P.

16. (Original) The polypeptide of claim 1, wherein said polypeptide comprises an amino acid sequence at least 95% identical to any one of SEQ ID NOS: 20-38.

17. (Previously presented) The polypeptide of claim 1, wherein said polypeptide, when combined with an RNA subunit to form an RNase P holoenzyme, has at least 20% of the enzymatic activity of an *E. coli* or *B. subtilis* RNase P holoenzyme, wherein said enzymatic activity is the hydrolysis of an RNase P substrate.

18. (Original) The method of claim 14, wherein said buffer comprises 2-10 mM DTT.

19. (Original) The method of claim 9, wherein said polypeptide has 100% identity to the corresponding twenty amino acids: R11, L12, F18, R46, G48, V51, K53, K54, A59, V60, R62, N63, K66, R67, R70, L80, D84, V86, L101, and L105 of *E. coli* RNase P.

20. (Original) The method of claim 8, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NOS: 20-38.

21. (Previously presented) The method of claim 8, wherein said polypeptide, when combined with an RNA subunit to form an RNase P holoenzyme, has at least

20% of the enzymatic activity of an *E. coli* or *B. subtilis* RNase P holoenzyme, wherein said enzymatic activity is the hydrolysis of an RNase P substrate.

22. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 20.

23. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 21.

24. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 22.

25. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 23.

26. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 24.

27. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 25.

28. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 26.

29. (Original) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 27.

30. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 28.

31. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 29.

32. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 30.

33. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 31.

34. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 32.

35. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 33.

36. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 34.

37. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 35.

38. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 36.

39. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 37.

40. (Withdrawn) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 38.

In the drawings:

The attached sheet of drawings includes changes to Figure 1. This sheet replaces the previously presented sheet of Figure 1.